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CLAIMS

What is claimed is:

5   1.   A software system with a two tier arrangement
for threads support, comprising:
        virtual machine including a threads interface
layer having a set of methods that provide thread
support in the virtual machine according to a
10 standard threads interface associated with the
virtual machine;
        native threads interface layer that provides a
set of methods that adapt the methods of the threads
interface layer to a platform which underlies the
15 software system.

2.   The software system of claim 1, wherein the
standard threads interface is a Java threads class.

20 3.   The software system of claim 1, wherein the
threads interface layer maintains a set of context
information for each of a set of threads in the
software system in terms of the virtual machine.

25 4.   The software system of claim 3, wherein the
context information includes a value for each of a
set of virtual machine registers associated with
corresponding thread.

30 5.   The software system of claim 1, wherein the
native threads interface layer maintains a set of
context information for each of a set of threads in
the software system in terms of the platform.

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6.   The software system of claim 5, wherein the
context information includes a value for each of a
set of processor registers associated with the
platform.

7.   The software system of claim 1, wherein the
native threads interface layer includes a method that
enables the threads interface layer to suspend a
particular thread.

8.   The software system of claim 1, wherein the
native threads interface layer includes a method that
enables the threads interface layer to resume a
particular thread.

9.   The software system of claim 1, wherein the
native threads interface layer includes a method that
enables the threads interface layer to wait for
completion of a particular thread.

10.   The software system of claim 1, wherein the
native threads interface layer includes a method that
enables the threads interface layer to yield
execution to another thread.

11.   The software system of claim 1, wherein the
native threads interface layer includes a method that
enables the threads interface layer to stop an
execution of a particular thread and to clean up a
set of structures associated with the particular
thread.

12. The software system of claim 1, wherein the native threads interface layer includes a method that enables the threads interface layer to set a priority of a particular thread.

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13. The software system of claim 1, wherein the native threads interface layer includes a method that enables the threads interface layer to obtain a priority of a particular thread.

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14. The software system of claim 1, wherein the native threads interface layer includes a method that enables the threads interface layer to obtain an identifier of a currently executing thread.

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15. The software system of claim 1, wherein the native threads interface layer includes a method that enables the threads interface layer to select a thread for execution.

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16. A method for providing threads support for a virtual machine in a software system, comprising the steps of:

providing a threads interface layer in the
25 virtual machine including a set of methods that provide thread support according to a standard threads interface associated with the virtual machine;

providing a native threads interface layer
30 having a set of methods that adapt the methods of the threads interface layer to a platform which underlies the software system.

17. The method of claim 16, wherein the methods in the threads interface layer perform the step of maintaining a set of context information for each of a set of threads in the software system in terms of

5   the virtual machine.

18. The method of claim 17, wherein the step of maintaining a set of context information comprises the step of maintaining a value for each of a set of

10   virtual machine registers associated with corresponding thread.

19. The method of claim 16, wherein the methods in the native threads interface layer perform the step

15   of maintaining a set of context information for each of a set of threads in the software system in terms of the platform.

20. The method of claim 19, wherein the step of maintaining a set of context information comprises

20   the step of maintaining a value for each of a set of processor registers associated with the platform.

21. The method of claim 16, wherein the methods in

25   the native threads interface layer include a method that performs the step of suspending a particular thread.

22. The method of claim 16, wherein the methods in

30   the native threads interface layer include a method that performs the step of resuming a particular thread.

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23. The method of claim 16, wherein the methods in the native threads interface layer include a method that performs the step of waiting for completion of a particular thread.

24. The method of claim 16, wherein the methods in the native threads interface layer include a method that performs the step of yielding execution to another thread in response to a request from one or more of the methods in the threads interface layer.

25. The method of claim 16, wherein the methods in the native threads interface layer include a method that performs the steps of stopping execution of a particular thread and cleaning up a set of structures associated with the particular thread.

26. The method of claim 16, wherein the methods in the native threads interface layer include a method that performs the step of setting a priority of a particular thread.

27. The method of claim 16, wherein the methods in the native threads interface layer include a method that performs the step of obtaining a priority of a particular thread.

28. The method of claim 16, wherein the methods in the native threads interface layer include a method that performs the step of obtaining an identifier of a currently executing thread.

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29. The method of claim 16, wherein the methods in the native threads interface layer include a method that performs the step of selecting a thread for execution.

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